

REMARKS

Claims 1, 15-18, 27, 37 and 38 are pending in this application. By the above amendment, claim 38 has been cancelled.

The Office Action dated May 20, 2005, has been received and carefully reviewed. In that Office Action it was indicated that claims 15-18 were allowed. Claim 1 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima in view of Nagasaka, and claim 37 stands rejected under 35 U.S.C. 102(b) as being anticipated by Takashima. Claim 38 was withdrawn from consideration as being directed to an independent invention and by the above amendment has been cancelled without prejudice. Reconsideration and allowance of claims 1, 27 and 37 is respectfully requested in view of the following remarks.

STATEMENT OF SUBSTANCE OF INTERVIEW

As an initial matter, it is noted that Applicant's representative Scott Wakeman and Examiner Richard Lee discussed the above Office Action during a telephone interview on August 2, 2005. The following is a statement of the substance of the interview as required by MPEP 713.04.

No exhibits were shown. Claim 1 and the U.S. 5,754,233 to Takashima were discussed. Applicant proposed a possible amendment to claim 1 to better define over Takashima. Specifically, Applicant proposed amending lines 4 and 5 of claim 1 to read "a calculating unit for calculating statistics of a numerical value characterizing motion vector information related to said image data." The examiner did not believe that this change would overcome the rejections.

Next Applicant's representative requested clarification as to which elements in Takashima were believed to correspond to the claimed "statistics of motion vector information" and the "frame feature value" required by claim 1. The examiner argued that either of two elements in Takashima could correspond to the claimed statistics of motion vector information. The examiner referred first to column 15, lines 32-33 of Takashima which indicate that "...the ME circuit 103 detects the motion vector across the interval between I-pictures." The examiner indicated that this detected motion vector corresponded to the claimed "statistics of motion vector information." Alternately, the examiner refers to lines 44-48 of Takashima, which provide: "The scene change detection circuit 101 finds the sum of absolute values of residuals obtained at the time of motion vector detection by the ME circuit 103. If a scene change has been detected, the information on the sum of the absolute

values is routed to the timing control circuit 105.” The examiner indicated that this “sum of absolute values” also corresponded to “statistics of motion vector information.”

With regard to the “frame feature value” required by claim 1, the examiner referred again to lines 44-48 of Takashima and the language “information on the sum of the absolute values.” The examiner explained that if Takashima finds a value, such as a motion vector, then the “information” about this value, for example binary data that represents the data, satisfies the frame feature value limitation of claim 1.

No agreement was reached.

SUBSTANTIVE REJECTIONS

Claim 37

Claim 37 stands rejected under 35 U.S.C. 102(b) as being anticipated by Takashima. Claim 37 requires a step of calculating statistics of motion vector information related to image data and a step of generating a frame feature value comprising numerical information representing a quantity of a feature contained in a frame of the image data using the calculated statistics. The examiner has argued that either the statement 1) “...the ME circuit 103 detects the motion vector across the interval between I-pictures” or the statements 2) “The scene change detection circuit 101 finds the sum of absolute values of residuals obtained at the time of motion vector detection by the ME circuit 103. If a scene change has been detected, the information on the sum of the absolute values is routed to the timing control circuit 105” shows this claimed step.

It is respectfully submitted that the first statement above merely describes the determination of a motion vector. Finding a motion vector is not the same as the claimed step of calculating statistics of motion vectors. As discussed during the interview, an example of calculating statistics of motion vectors in one embodiment of the invention comprises calculating averages of motion vectors. It is respectfully submitted that a step of detecting a motion vector does not show or suggest the claimed step of calculating statistics of motion vectors as required by claim 37.

It is also respectfully submitted that the reference to a “sum of absolute values” refers to absolute values of residuals that are left after a scene change is detected. Residuals in turn are “bits left at the trailing end of a GOP (column 9, lines 22-24). These residuals are not motion vectors and are not statistics of motion vectors. Summing the absolute values of residuals does not provide statistics of motion vector information as required by claim 37.

For the above reasons, it is respectfully submitted that Takashima does not show or suggest a step of calculating statistics of motion vector information as required by claim 1, and that claim 1 is allowable over Takashima for at least this reason.

Claim 37 further requires a step of generating a frame feature value. As discussed above, it appears that the examiner interprets the word “information” in the phrase “the information on the sum of the absolute values” to show a frame feature value. In other words, the frame feature value might be the binary representation of the motion vector or sum of residuals found in an earlier step. However, the claimed frame feature value represents “a quantity of a feature contained in a frame of image data.” Even under the examiner’s interpretation, which is not believed to be consistent with the specification and arguments presented to date, the binary representation of a vector is not a value based on statistics of motion vector information (because no statistics of motion vector information are calculated) and does not appear to provide information on “the quantity of a feature contained in a frame.” It is not clear what “feature contained in a frame” is being described by the binary representation of a motion vector or a residual. For this reason, it is respectfully submitted that Takashima does not show the claimed step of generating a frame feature value and that Takashima is allowable over the references of record for at least this reason.

Claim 1

Claim 1 requires a calculating unit for calculating statistics of motion vector information and also a frame feature value generating unit for generating a frame feature value which is numerical information representing quantity of a feature contained in a frame of image data using calculated statistics. As discussed above in connection with claim 37, Takashima does not show or suggest the step of calculating statistics of motion vector information. Therefore, Takashima does not show or suggest a calculating unit for performing this action. Likewise, Takashima does not show or suggest generating a frame feature value. Therefore, Takashima does not show or suggest a frame feature value generating unit for performing this action. Nagasaka does not address these shortcomings of Takashima. Claim 1 is therefore submitted to be allowable over the art of record for at least the same reasons of claim 37.

The Office Action acknowledges that Takashima does not show or suggest a frame feature value storing unit for storing a frame feature value in correlating form with a frame of image data, the frame feature value storing unit being connected to a frame feature value generating unit as

required by claim 1. The Office Action indicates, however, that this feature is present in Nagasaka. It is respectfully submitted that 1) a proper motivation for combining Takashima and Nagasaka has not been provided and that 2) even if these references were somehow combined, the result would not be the claimed invention. Each of these points is addressed below.

It is respectfully submitted that a proper motivation for combining Takashima and Nagasaka has not been provided. The Office Action indicates that it would be obvious to combine these references because “one of ordinary skill in the art ... would have had no difficulty in providing the frame feature value storing unit 126 of 128 of Nagasaka et al to be connected to the frame feature value generating unit 101 of Figure 11 of Takashima....” The fact that a combination might be made “without difficulty” is not the standard for establishing a motivation to combine references. See, MPEP 2143.01 (“The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 16 U.S.P.Q. 2d 1430 (Fed. Cir. 1990). Neither the present application nor Nagasaka mentions buffering of data and Takashima does not discuss “buffering of data for timely processings” as stated in the Office Action. For these reasons, it is respectfully submitted that a proper motivation to combine these references has not been identified, that a *prima facie* case of obviousness has not been presented, and that claim 1 and its dependent claim 27 are allowable over the art of record.

Even if the references could properly be combined, the combination would not suggest the claimed invention. The examiner has argued that Takashima’s “frame feature value” is a binary representation of a motion vector or a binary representation of a sum of absolute values of residuals. Under this interpretation, the most that a combination of Takashima and Nagasaka would suggest would be replacing Takashima’s binary data with Nagasaka’s detected “frame feature.” (Nagasaki does not discuss a frame feature value as claimed.) In effect, this would require replacing Takashima’s binary data representing a detected motion vector with a frame feature. This would appear to change the operation of Takashima and apparently render Takashima’s device non-functional. For this reason as well, it is respectfully submitted that claim 1 patentably distinguishes over Takashima in view of Nagasaka.

Conclusion

Each issue raised in the Office Action dated May 20, 2005, has been addressed, and it is believed that claims 1, 15-18, 27 and 37 are now in condition for allowance. Wherefore, reconsideration and allowance of these claims is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Scott Wakeman (Reg. No. 37,750) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

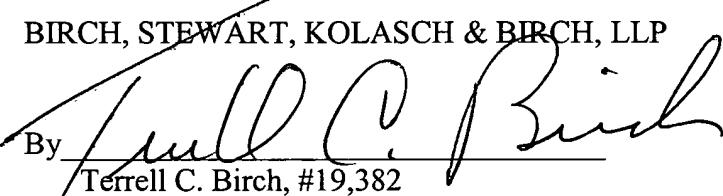
If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

~~BIRCH, STEWART, KOLASCH & BIRCH, LLP~~

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